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| 10/777,697 | 02/12/2004 | Bruce Schofield | 16421BAUS01U | 5707 |
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| JOHN C. GORECKI, ESQ. P.O BOX 553 CARLISLE, MA 01741 | | | KEEFER, MICHAEL E | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

john@gorecki.us

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/777,697 | SCHOFIELD ET AL. |
| | Examiner | Art Unit |
| | Michael E. Keefer | 2154 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 February 2004.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-17 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 12 February 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 11/18/2004.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

1. This Office Action is responsive to the Application filed 2/12/2004.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claim 17 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 22 of copending Application No. 10/719225. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claim 22 of 10/719225 anticipates claim 17 of the instant application (see *In re Goodman*).

Regarding **claim 17**, Claim 22 of 10/719225 discloses:

A medical image transport service configured to schedule network resources on a switched underlay network, comprising: (Claim 22 discloses a data transport service configured to schedule network resources on a switched underlay network)

a data management service, said data management service being configured to perform network topology discovery, route creation, and path allocation; and (Claim 22 discloses a data management service, said data management service being configured to perform network topology discovery, route creation, and path allocation)

a network resource manager, said network resource manager being configured to interface network devices in the switched underlay network to schedule network resources on the switched underlay network; (Claim 22 discloses: a network resource manager, said network resource manager being configured to interface network devices in the switched underlay network to schedule network resources on the switched underlay network)

wherein at least one of the data management service and the network resource manager is configured to schedule requests for the network resources on the switched underlay network. (Claim 22 discloses: wherein at least one of the data management service and the network resource manager is configured to schedule underconstrained requests for the network resources on the switched underlay network. Underconstrained requests are still requests, therefore anticipate requests as stated in claim 17.)

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claim 12 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 16 of copending Application No. 10/719225. Although the conflicting claims are not identical, they are not patentably

distinct from each other because Claim 16 of 10/719225 anticipates claim 12 of the instant application (see *In re Goodman*).

Regarding **claim 12**, Claim 16 of 10/719225 discloses:

A method of facilitating the transmission of medical images (Claim 1: resources) on a network, the method comprising the steps of:

receiving a transaction request, said transaction relating to the delivery of medical images on a network; (Claim 1: receiving a request for scheduled resources (i.e. the scheduling of a delivery of an image)

scheduling the transaction request for delivery on the network; (Claim 1: scheduling the request)

reserving network resources for transaction request. (Claim 16: interfacing with network resources to reserve the resources for the request)

coordinating with a data source to transmit data over the scheduled resources. (Claim 1 recites this limitation verbatim)

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claim 17 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 12 of copending Application No. 10/812581. Although the conflicting claims are not identical, they are not patentably distinct from each other because Claim 12 of 10/812581 anticipates claim 17 of the instant application (see *In re Goodman*).

Regarding **claim 17**, Claim 12 of 10/812581 discloses:

A medical image transport service configured to schedule network resources on a switched underlay network, comprising:

a data management service, said data management service being configured to perform network topology discovery, route creation, and path allocation; and (Claim 12 discloses a data management service, said data management service being configured to perform network topology discovery, route creation, and path allocation)

a network resource manager, said network resource manager being configured to interface network devices in the switched underlay network to schedule network resources on the switched underlay network; (Claim 12 discloses: a network resource manager, said network resource manager being configured to interface network devices in the switched underlay network to schedule network resources on the switched underlay network)

wherein at least one of the data management service and the network resource manager is configured to schedule requests for the network resources on the switched underlay network. (Claim 12 discloses: wherein at least one of the data management service and the network resource manager is configured to schedule underconstrained requests for the network resources on the switched underlay network. Underconstrained requests are still requests, therefore anticipate requests as stated in claim 17.)

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Cutrell et al. (US 2005/0076336), hereafter Cutrell.

Regarding claim 17, Cutrell discloses:

A medical image transport service configured to schedule network resources on a switched underlay network, comprising: (Claim 22 discloses a data transport service configured to schedule network resources on a switched underlay network)

a data management service, said data management service being configured to perform network topology discovery, route creation, and path allocation; and (Claim 22 discloses a data management service, said data management service being configured to perform network ~~topology discovery, route creation, and path allocation~~)

a network resource manager, said network resource manager being configured to interface network devices in the switched underlay network to schedule network resources on the switched underlay network; (Claim 22 discloses: a network resource manager, said network resource manager being configured to interface network devices

in the switched underlay network to schedule network resources on the switched underlay network)

wherein at least one of the data management service and the network resource manager is configured to schedule requests for the network resources on the switched underlay network. (Claim 22 discloses: wherein at least one of the data management service and the network resource manager is configured to schedule underconstrained requests for the network resources on the switched underlay network. Underconstrained requests are still requests, therefore anticipate requests as stated in claim 17.)

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birdwell (US 6041359) in view of Percival et al. (US 5991816), hereafter Percival.

Regarding **claim 1**, Birdwell discloses:

A method of facilitating the transmission of medical images on a network, the method comprising the steps of:

receiving a transaction request, said transaction relating to the delivery of medical images on a network; (Fig. 3, step 50)

scheduling the transaction request for delivery on the network; (Fig. 3 step

reserving network resources for transaction request. (Fig. 4, step 74)

Birdwell discloses all the limitations of claim 1 except that the data or content to be transmitted are medical images.

The general concept of requesting medical images to be transmitted over the network is well known in the art as taught by Percival. (Abstract)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Birdwell with the general concept of requesting medical images to be transmitted over the network as taught by Percival in order to send medical images from a packet network into a wireless network so that wireless clients can receive the images.

10. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kausik et al. (US 2004/0073867), hereafter Kausik in view of Percival.

Regarding **claim 1**, Kausik discloses:

A method of facilitating the transmission of medical images on a network, the method comprising the steps of:

receiving a transaction request, said transaction relating to the delivery of medical images on a network; (Fig. 4, User request 410)

scheduling the transaction request for delivery on the network; (The response is scheduled to be sent immediately from cache if possible, otherwise it is scheduled to be sent to the content server immediately, see Fig. 4)

reserving network resources for transaction request. (If the response is not in a cache, a space is reserved in the cache (a network resource) to store the response (Fig. 4 item 480)

Regarding **claim 2**, Kausik discloses:

wherein the step of scheduling comprises understanding a work flow of transactions on the network. ("The anticipated requests can be precomputed based on triggers reflecting users' historical access patterns." Abstract)

Regarding **claim 3**, Kausik discloses:

wherein the step of understanding the work-flow comprises anticipating upcoming transaction requests from at least one of other transaction requests, statistics, and transaction patterns. ("The anticipated requests can be precomputed based on triggers reflecting users' historical access patterns." Abstract, this involves other transaction requests ("historical access") as well as the patterns of the transaction requests "historical access patterns".)

Kausik discloses all the limitations of claims 1-3 except that the data or content to be transmitted are medical images.

The general concept of requesting medical images to be transmitted over the network is well known in the art as taught by Percival. (Abstract)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kausic with the general concept of requesting medical images to be transmitted over the network as taught by Percival in order to increase the speed at which medical images can be retrieved.

11. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitsukawa et al. (US 2002/0157092), hereafter Kitsukawa in view of Percival.

Regarding **claim 1**, Kitsukawa discloses:

A method of facilitating the transmission of medical images on a network, the method comprising the steps of:
receiving a transaction request, said transaction relating to the delivery of medical images on a network; (Abstract "The system downloads content relevant to the usage on or about the predicted time of usage" so a request is sent for the content)

scheduling the transaction request for delivery on the network; (Fig. 8, step 136)

reserving network resources for transaction request. (Fig. 8 step 138 reserves the network content onto the local device prior to the request)

Regarding **claim 2**, Kitsukawa discloses:

wherein the step of scheduling comprises understanding a work flow of transactions on the network. (Fig. 8, step 132)

Regarding **claim 3**, Kitsukawa discloses:

wherein the step of understanding the work-flow comprises anticipating upcoming transaction requests from at least one of other transaction requests, statistics, and transaction patterns. (Fig. 8, steps 132-136)

Kitsukawa discloses all the limitations of claims 1-3 except that the data or content to be transmitted are medical images.

The general concept of requesting medical images to be transmitted over the network is well known in the art as taught by Percival. (Abstract)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Kitsukawa with the general concept of requesting medical images to be transmitted over the network as taught by Percival in order to increase the speed at which medical images can be retrieved.

12. **Claims 4-8 and 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Birdwell in view of Percival as applied to claim 1 above, and further in view of Sanders, III et al. (US 2003/0083081), hereafter Sanders and in further view of Pandya et al. (US 6671724), hereafter Pandya.

Regarding **claim 10**, Birdwell discloses:

Scheduling a transaction request to occur some time in the future.
(Abstract "schedules reservations for the upcoming time period")

Birdwell and Percival teach all the limitations of claims 4-8 except for ascertaining relative priorities of the requests based on various network policies.

Pandya teaches ascertaining relative priorities of network requests by policies regarding (See Col. 9, lines 1-15): time of day, who issued the transaction request ("user identity"), and where the request was issued (IP source/destination address or device identity).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Birdwell and Percival with Pandya in order to increase the efficiency of network resources.

Pandya, Percival and Birdwell teach all the limitations of claims 4-8 except for using the criterion of "why the request was sent" to determine relative priority and that the schedule of transactions are adjusted.

Sanders teaches determining priority between competing requests by time of day, identity of caller, and type of service (i.e. why the request was sent - the transaction request was sent to gain a type of service, therefore the type of service is the reason the request was sent) [0035]. Sanders also teaches adjusting the schedule of services based off of priority (Fig. 3), if the first service is higher priority, it adjusts the schedule of services to make the first service the currently active service instead of the second service.

The Examiner notes that in order to be able to use these criteria to determine a priority, the determining agent must have access to them via the transaction request (i.e. determining who where and why the request was issued)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Birdwell and Percival and Pandya with Sanders in order to allow certain types of service to have priority over other non-essential types of service.

13. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Birdwell, Percival, Pandya and Sanders as applied to claims 1, 4, and 10 above, and further in view of Ruttenberg et al. (US 2002/0083185), hereafter Ruttenberg.

Birdwell, Percival, Pandya, and Sanders teach all the limitations of claim 11 except for the request having an under-constrained requested timing.

The general concept of a request for a transaction including under-constrained timing details is well known in the art as taught by Ruttenberg. ([0033], note that "the deadline for data arrival" is an under-constrained request, as it merely requests that the data arrive by a certain time and does not give a specific time for transmission.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Birdwell, Percival, Pandya, and Sanders with the general concept of a request for a transaction including under-constrained timing details as taught by Ruttenberg in order to allow the system to use network resources more efficiently when a request does not need to be processed on demand.

14. Claims 1, 4, 8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruttenberg in view of Percival.

Regarding **claim 1**, Ruttenberg discloses:

A method of facilitating the transmission of medical images on a network, the method comprising the steps of:

receiving a transaction request, said transaction relating to the delivery of medical images on a network; ([0031] admission control module receives a data request)

scheduling the transaction request for delivery on the network; ([0033] details the process that decides whether a request will be scheduled or not) reserving network resources for transaction request. (The last sentence of [0033] states that when the scheduling is accepted resources for the request are reserved)

Regarding **claims 4 and 8**, Ruttenberg discloses:

Determining a relative priority of requests and adjusting the schedule of the requests. ([0040] describes the functions of the Preemption module 740 which allows certain higher priority requests to execute by being scheduled ahead of already executing requests.)

Regarding **claim 12**, Ruttenberg discloses:

The step of coordinating with a data source to transmit data over the scheduled resources. ([0031] discloses that the scheduling module sends requests to the data sources to see if they will accept the data request. (I.e. coordinating with the data source), in addition [0049] discloses that the execution module determines how much data is sent from the sender (i.e. data source) to the receiver at one time, coordinating the speed of the data transfer.)

Ruttenberg discloses all the limitations of claims 1, 4, 8, and 12 except that the data or content to be transmitted are medical images.

The general concept of requesting medical images to be transmitted over the network is well known in the art as taught by Percival. (Abstract)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Ruttenberg with the general concept of requesting medical images to be transmitted over the network as taught by Percival in order to more efficiently execute the transfer of medical image files.

15. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruttenberg and Percival as applied to claim 1 above, and further in view of Hamilton et al. (US 6975963), hereafter Hamilton.

Ruttenberg and Percival teach all the limitations of claim 9 except for generating a histogram of network traffic over a day or week.

The general concept of creating a histogram of network traffic over a time period is well known in the art as taught by Hamilton. (Col. 10 lines 14-33 teach the creation of histograms for network traffic over varying time spans, which include days and weeks.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ruttenberg and Precival with the general concept of creating a histogram of network traffic over a time period as taught by Hamilton in order to allow a network administrator to have access to data needed to configure scheduler settings.

16. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruttenberg and Percival as applied to claim 1 above, and further in view of Chambliss et al. (US 2004/0003087), hereafter Chambliss.

Ruttenberg and Percival teach all the limitations of claim 13 except for assigning a class of service to a request.

The general concept of assigning a class of service to a transaction request is well known in the art as taught by Chambliss. ([0023] "associating each resource [i.e. data] request with a service class by a request classifier")

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ruttenberg and Percival with the general concept of assigning a

class of service to a transaction request as taught by Chambliss in order to optimize system performance.

17. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruttenberg and Percival as applied to claim 1 above, and further in view of Kurose et al. (US 2001/0056459), hereafter Kurose.

Ruttenberg and Percival teach all the limitations of claims 14-15 except for finding a path for the data and reserving bandwidth along the path.

The general concept of using RSVP to reserve bandwidth for transactions is well known in the art as taught by Kurose. ([0008] teaches setting up a path, [0010] teaches reserving bandwidth along the previously set up path)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ruttenberg and Percival with the general concept of using RSVP to reserve bandwidth for transactions as taught by Kurose in order to ensure end-to-end quality of service and allow multi-hop transactions.

18. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruttenberg and Percival as applied to claim 1 above, and further in view of Hoogenboom et al. (US 2002/0054568), hereafter Hoogenboom.

Ruttenberg and Percival teach all the limitations of claim 16 except for rate-limiting applications.

The general concept of rate-limiting applications is well known in the art as taught by Hoogenboom. (Abstract, the switch enforces rate-limiting policies against virtual connections (i.e. applications) when a backlog reaches a certain level.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ruttenberg and Percival with the general concept of rate-limiting applications as taught by Hoogenboom in order to prevent application starving (i.e. that certain applications will never be allocated any resources.)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael E. Keefer whose telephone number is (571) 270-1591. The examiner can normally be reached on Monday through Friday 5:30am-2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MEK 8/23/2007

NATHAN FLYNN
SUPERVISORY PATENT EXAMINER